

The Treatment of Pes Anserine Syndrome Using ACL Injury Prevention Exercises: A Case Report

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Background

- Pes anserine syndrome (PAS) is the inflammation of either the pes anserine bursa, tendon, or both.
- The incidence and etiology of PAS are unknown at this time.
- There is limited literature available for the treatment and rehabilitation of PAS.
- Anterior cruciate ligament (ACL) injury prevention exercises address proper hip, knee, and ankle alignment and decrease the risk of ACL injuries by 52% in females and 85% in males.¹

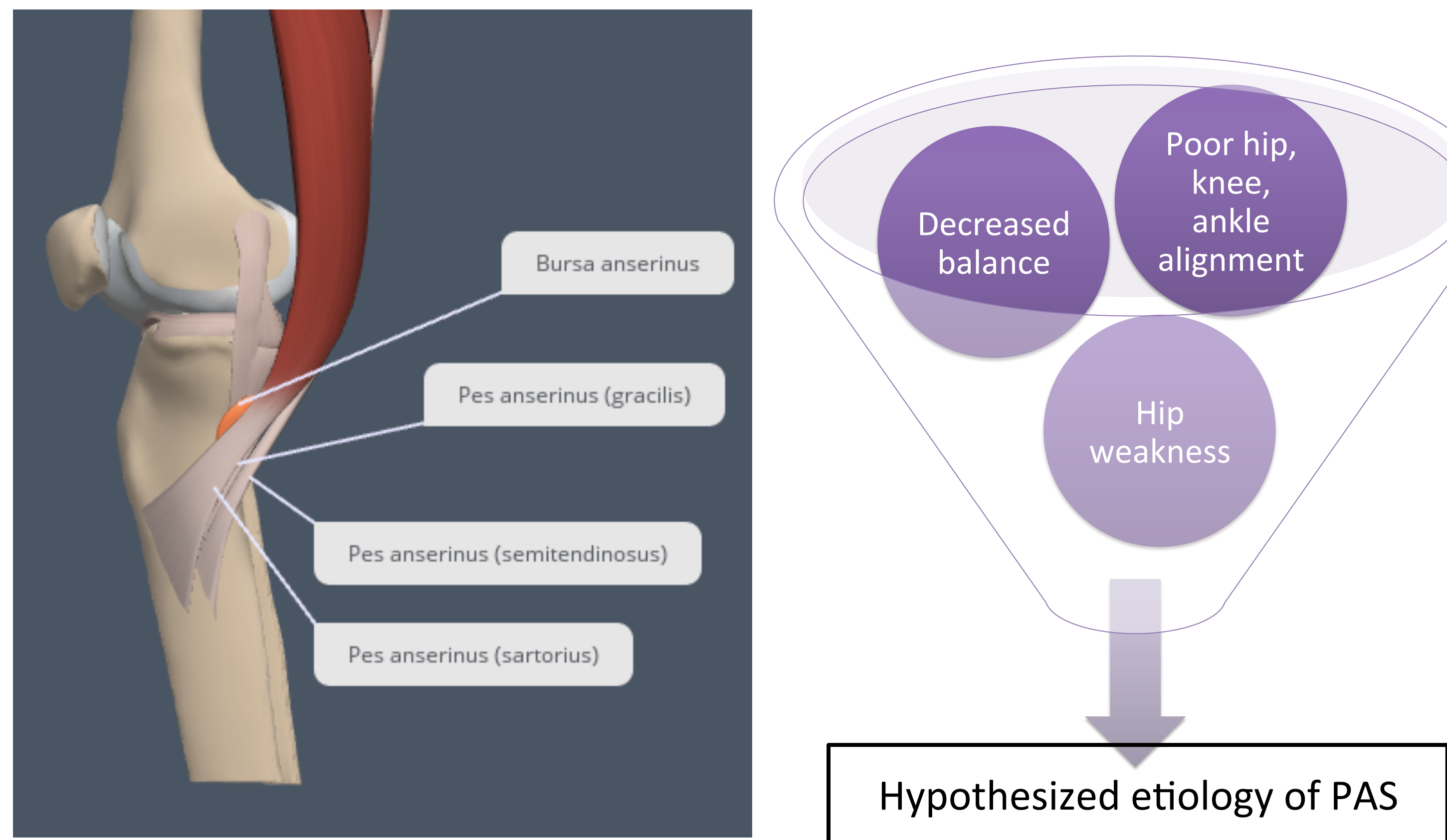


Figure 1: Anatomy of the pes anserinus tendons and bursa anserinus of the right knee. (Medial view)

Purpose

The purpose of this case report was to utilize ACL injury prevention exercises within a comprehensive physical therapy(PT) plan of care (POC) for a patient with PAS.

Case Description

- The patient was an active 32-year-old male who ran 2-5 miles recreationally with a primary complaint of left knee pain.
- The patient's initial evaluation demonstrated increased tenderness to palpation at the pes anserine, mild strength deficits, and 8/10 pain at its worst as measured by the NPRS.
- The patient was seen 2x/week for 8 weeks.
- The patient demonstrated knee valgus positioning with squatting exercises.

Interventions

- The patient was discharged after 12 visits with a home exercise program (HEP) to continue improvements in order to run > 3 miles.

ACL Injury Prevention Exercises



Figure 2: Single Leg Stance 3-way Toe Tap



Figure 3: Resisted Side Steps



Figure 4: Double-legged Squat



Figure 5: Single Leg Forward Hops



Figure 6: Single Leg Lateral Bounds

Outcomes

Tests & Measures	Initial Evaluation Results		Discharge Results	
Lower Extremity Functional Scale (LEFS)	67 / 80		79 /80	
Numeric Pain Rating Scale (0-10)	Best: 0 / 10 Worst: 8 / 10 Current: 2 / 10		Best: 0 / 10 Worst: 0 / 10 Current: 0 / 10	
Knee Flexion Active Range of Motion (AROM)	136° (painful)		145°	
Manual Muscle Testing (MMT)	Right	Left	Right	Left
Hip Flexion	4+ / 5	4 / 5	5 / 5	5 / 5
Hip Extension	5 / 5	4 / 5	5 / 5	5- / 5
Hip Abduction	5 / 5	4 / 5	5 / 5	5 / 5
Hip Internal Rotation	5 / 5	5 / 5	5 / 5	5 / 5
Hip External Rotation	5 / 5	4+ / 5	5 / 5	5 / 5
Knee Flexion	5 / 5	4+ / 5	5 / 5	5 / 5
Knee Extension	5 / 5	4+ / 5	5 / 5	5 / 5

Table 1: Tests & Measures at Initial Evaluation and Discharge

Conclusions

- The use of left LE exercises in ACL injury prevention was effective treatment for a 32-year-old male with PAS.
- The patient demonstrated significant improvement with knee alignment during dynamic activities as compared to the initial evaluation.
- Future research may consider:
 - Focusing on developing a standardized treatment approach for PAS.
 - Research into the effectiveness of ACL injury prevention exercises on a larger number of patients with PAS.
 - Investigate which interventions were most effective in rehabilitating PAS.

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References

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